communication interface has the capability of transmitting the ECG data produced to a healthcare provider. The important part of the claim limitation is the transmission of patient ECG data. Should Applicant delete "to a healthcare provider", the Examiner may then object to the claim for not stating where the transmission is destined. The claim also calls for an ECG monitor "connected to a plurality of lead wires." This is not inferentially claiming "a plurality of lead wires" — there is nothing to infer, as the ECG monitor is stated to be specifically connected to the plurality of lead wires. However, because it really has no effect on the claim, Applicant has amended claim 1 to move the limitation and satisfy the Examiner.

The Examiner has suggested other amendments that the Examiner believes will remove the rejection. Accordingly, Applicant has amended claim 1 to incorporate those suggested amendments as well.

Claim Rejections – 35 U.S.C. §102(b)

The Examiner next rejected claims 1, 2, and 11-13 under 35 U.S.C. §102(e) as being anticipated by a newly cited reference, Murphy (USP 6,409,661). As previously stated, the Examiner indicated that the current Office Action is final. The finality of the Office Action was made contrary to a request by Applicant that the current Office Action be non-final because, in the Office Action of July 18, 2002, the Examiner rejected claims 1 and 2 under 35 U.S.C. §102(b) without providing a basis or explanation for the rejection.

In the remarks responding to the Office Action of July 18, 2002, Applicant reminded the Examiner that, in order to anticipate a claim, a reference must teach each and every element of the claim. See MPEP § 2131. Furthermore, Applicant is not obligated to respond to an unsubstantiated rejection. Therefore, since the Examiner did not provide the required basis for the rejection, any subsequent Office Action should have been non-final.

In the current Office Action, the Examiner has rejected claims 1, 2, and 11-13 under §102(e) as being anticipated by a reference previously not cited. The Examiner stated that the current invention is "clearly anticipated by Murphy." However, the Examiner has, again, failed to provide a basis or explanation of the rejection and made the action final. As such, Applicant reiterates that under MPEP §2131 the reference must teach each and every element of the claim. The Examiner has failed to show that this burden has been met and therefore, Applicant believes the rejection is inappropriate.

It is noted that while Applicant believes that the claims in the present invention define over Murphy, since Applicant invented before the critical date of Murphy, Applicant elects to antedate the Murphy reference. Enclosed herewith is a Declaration under 37 C.F.R. 1.131. Applicant asserts an invention date prior to the § 371(c)(1), (2) and (4) date of the Murphy reference. The enclosed Declaration, which evidences a date of conception prior to the § 371(c)(1), (2) and (4) date of the Murphy reference, together with due diligence to an actual reduction to practice, is sufficient to eliminate the Murphy reference as prior art. Withdrawal of the Examiner's rejections is requested and appreciated.

Claim Rejections – 35 U.S.C. 103(a)

The Examiner also rejected claim 1 under 35 U.S.C. §103(a) as being unpatentable over David et al. The Examiner states that David et al. "discloses all of the claimed limitations but does not explicitly speak to a 12-lead ECG apparatus." The Examiner then states that "[i]t would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the ECG monitoring of David to include a 12-lead ECG apparatus since it was well known in the art to use a 12-lead ECG apparatus for producing a complete and easily readable electrocardiograph data record which, in turn, results in more accurate diagnoses by the monitoring health care provider." The Examiner also states that "[i]n the alternative, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the ECG monitoring of David to include a 12-lead ECG apparatus since it was well known in the art to provide for a conversion process or apparatus to convert the current ECG lead system to a 12-lead ECG apparatus."

Similarly, the Examiner rejected claim 1 under 35 U.S.C. §103(a) as being unpatentable over Bomn et al. In doing so, the Examiner stated that "Bomn discloses all of the claimed limitations including using different configurations of electrodes but does not explicitly speak to a 12-lead ECG apparatus." However, the Examiner stated "[i]t would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the ECG monitoring of Bomn to include a 12-lead ECG apparatus since it was well known in the art to use a 12-lead ECG apparatus" or alternatively, "it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the ECG monitoring of Bomn to include a 12-lead

ECG apparatus since it was well known in the art to provide for a conversion process or apparatus to convert the current ECG lead system to a 12 lead ECG apparatus."

The Examiner has provided no support or basis for these assertions. To establish a *prima facie* case of obviousness, the Examiner carries the burden of showing that the cited references teach each and every element of the claimed invention and presenting "a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." Ex parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). "Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art." MPEP § 2143.01. The Examiner clearly failed to meet this burden. Therefore, Applicant requests the Examiner remove the rejection or provide a basis for the assertions that it would have been obvious to modify the systems taught by Bornn et al. and David et al.

Specifically, the current invention calls the reception of ECG signals from the patient "in a standard 12-lead configuration" and for the production of "standard 12-lead ECG data representative of cardiac condition of the patient." Bornn teaches directly away from the reception of data from the patient in standard 12-lead configuration and the production of standard 12-lead ECG data. Bornn et al. discloses the use of "pairs of electrodes" in various configurations. Col. 9, lns. 10-30 and Col. 10, lns. 1-6. One skilled in the art will immediately recognize that use of "pairs of electrodes" is indicative of bi-polar electrodes. Standard 12-lead ECG data is acquired from uni-polar electrodes. Thus, Bornn is not capable of a standard 12-lead ECG data output.

The Examiner also rejected Applicant's remarks without basis. Specifically, in the remarks responding to the Office Action of July 18, 2002, Applicant showed that the reference does not teach the incorporation of each of the elements into a single unit, nor does David et al. teach or refer to the transmission of data that has been processed. Furthermore, Applicant showed that the configuration disclosed in David et al. is incapable of portability. That is, the cumbersome equipment required for television broadcast in conjunction the ECG equipment attached to a chair make extensive patient movement impractical. The Examiner chose not to

address these remarks and, rather, the Examiner broadly stated that portability does not require structural differences between the claimed invention and that taught in the cited references. Applicant strongly disagrees with the Examiner's assertion. Simply, to state that portability does not require structural differences is incorrect. The system of David et al. is not portable.

Specifically, in the Examiner's response to Applicant's arguments, the Examiner dismissed Applicant's arguments, saying that portability is merely intended use and "a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention." The Examiner concludes that portability does not result in a structural difference between the present invention and that of David et al. or Bomn et al. Furthermore, the Examiner stated that "Applicant's remaining arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection."

Murphy however explicitly states that David et al. does not teach the integration of the system into a single, portable, apparatus controlled by a processor. *See* Murphy, Col. 2, lns. 10-23. That is, the very reference cited by the Examiner contradicts the Examiner's assertions about that which is taught by David et al.

Additionally, since Applicant has antedated Murphy, "the new ground(s) of rejection" has been removed. As such, Applicant believes the rejection is not sustainable and believes claim 1 is patentably distinct over the art of record.

Nonetheless, the Examiner's rejection of Applicant's argument by stating that portability and "on-demand" do not require structural differences is incorrect. Applicant has shown that Bomn et al. clearly teaches away from that which is claimed. For example Bomn et al. teaches away from the ECG monitor being "on-demand." Bomn teaches that the patient must wear "a torso band and an optional shoulder band." Col. 4, lns. 5-6. Should the patient move beyond communications range or remove the torso band the monitor will enter an alert condition. Col. 3, lns. 15-52 and Col. 4, lns. 3-25. A patient must reenter the communications range and/or replace the torso band within a permissible time interval in order to avoid conveying a false positive indication to the central station. Col. 3, lns 15-25. Simply, the ECG monitor taught in Bomn is not on-demand because a patient does not have the option to use the ECG monitor at his or her discretion. That is, the structure is designed to be worn continuously. However, claim 1 clearly

calls for "a portable, on-demand ECG monitor," which one of ordinary skill in the art will readily recognize requires structural differences to allow the patient to add and remove the ECG monitor at the patient's discretion. One of ordinary skill in the art will readily recognize that these differences clearly require structural differences.

The Examiner rejected claims 3, 7-10, 14, and 15 by reiterating the rejection of those claims in the previous Office Action. Applicant believes these rejections to be directed to the claims and specification prior to the Response of November 19, 2002. Specifically, it appears the Examiner failed to consider the claims and specification as amended. The Examiner is again reminded that the Examiner carries the burden of showing that the cited references teach each and every element of the claimed invention and presenting "a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." Ex parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). The Examiner has failed to meet this burden. For example, regarding the rejection of claims 3 and 7-9 as unpatentable over David et al., the Examiner states that "David discloses all of the claimed limitation but does not explicitly speak to a WebTV appliance or an interactive Internet appliance." However, the Response of November 19, 2002, included amendments to remove all occurrences of "WebTV" throughout the specification and claims. As such, Applicant believes it is evident that the Examiner's rejection is not directed to the claims as they presently stand. Therefore, Applicant requests the examiner remove the rejection and reconsider the amendments and remarks previously submitted.

Applicant respectfully disagrees with the Examiner with respect to the state of the art. However, in light of each of the aforementioned claims depending from what is believed an otherwise allowable claim, Applicant does not believe additional remarks are necessary and therefore requests a Notice of Allowance for claims 2-15 pursuant to the chain of dependency.

Therefore, in light of the foregoing, Applicant respectfully believes that the present application is in condition for allowance. As a result, Applicant respectfully requests timely issuance of a Notice of Allowance for claims 1-15.

Marked-up versions of the amendments made above may be found on page 9.

Applicant appreciates the Examiner's consideration of these Amendments and Remarks and cordially invites the Examiner to call the undersigned, should the Examiner consider any matters unresolved.

Respectfully submitted,

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REVISIONS

1. (~~Once~~Twice Amended) A portable ECG device comprising:

a plurality of lead wires;

a portable, on-demand ECG monitor adapted to be connected to athe plurality of lead wires, each lead wire having a transducer capable of receiving an ECG signal from a patient in a standard 12-lead configuration, the ECG monitor having a processor to process the ECG signals from the plurality of lead wires and produce standard 12-lead ECG data representative of cardiac condition of the patient;

a wireless communication interface coupled to receive patient ECG data from the ECG monitor and capable of ~~to~~ transmitting patient ECG data to a health care provider.